



Docket No.: 239516US0CONT

COMMISSIONER FOR PATENTS
ALEXANDRIA, VIRGINIA 22313



RE: Application Serial No.: 10/607,049

Applicants: Kenichi HIRAOKA

Filing Date: June 27, 2003

For: FISH EGG OR MILT PRODUCT HAVING
EXTENDED TASTING PERIOD

Group Art Unit: 1761

Examiner: Kuhns, S.L.

SIR:

Attached hereto for filing are the following papers:

Appeal Brief w/attached Appendices

Our credit card payment form in the amount of \$250.00 is attached covering any required fees. In the event any variance exists between the amount enclosed and the Patent Office charges for filing the above-noted documents, including any fees required under 37 C.F.R. 1.136 for any necessary Extension of Time to make the filing of the attached documents timely, please charge or credit the difference to our Deposit Account No. 15-0030. Further, if these papers are not considered timely filed, then a petition is hereby made under 37 C.F.R. 1.136 for the necessary extension of time. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

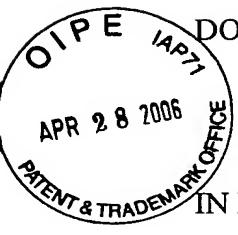
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DOCKET NO.: 239516US0CONT

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF:

KENICHI HIRAOKA : EXAMINER: KUHNS, S. L.

SERIAL NO.: 10/607,049 :

FILED: JUNE 27, 2003 : GROUP ART UNIT: 1761

FOR: FISH EGG OR MILT PRODUCT HAVING EXTENDED TASTING PERIOD

APPEAL BRIEF

COMMISSIONER FOR PATENTS
P.O. BOX 1450
ALEXANDRIA, VA 22313-1450

SIR:

This is an appeal of the Final Rejection of Claims 1, 2, 5-13, and 16-22 in the above-identified application set forth in the Official Action mailed October 7, 2005.

I. Real Party of Interest

The real party of interest is Japan-Techno, Inc., located in Hiroshima, Japan, by virtue of the assignment recorded in the U.S. Patent and Trademark Office on December 29, 2005, at reel 017303, frames 0854-0857.

II. Related Appeals and Interferences

Appellants, Appellants' legal representative and their assignee are not aware of any appeals or interferences which will directly affect or be directly affected by or having a bearing on the Board's decision in this appeal.

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III. Status of Claims

Claims 1, 2, 5-13, and 16-22 are the only claims pending in the above-identified application.

Claims 1, 2, 5-13, and 16-22 stand rejected.

Claims 1, 2, 5-13, and 16-22 are appealed herein.

IV. Status of Amendments filed under 37 C.F.R. §1.116

An Amendment under 37 C.F.R. §1.116 was filed on February 7, 2006. This Amendment was considered by the Examiner and deemed not to be persuasive to the allowance of the claims. In the Advisory Action mailed on February 23, 2006, the Examiner has indicated that the Amendment would be entered for purposes of Appeal.

V. Summary of the Claimed Subject Matter

Fish eggs and milt traditional have short time periods of commercial value as food products. (see the specification at page 3, lines 15-21) Heretofore, the ability to process these fish eggs and milt to a useable form was limited by the time in the harvesting season. (see the specification at page 2, line 7 to page 3, line 14)

The claimed invention addresses this problem by providing the following methods:

As recited in independent Claim 1, the present invention provides a process for producing a fresh fish egg product or a milt product, by treating at least one fresh fish egg or milt with an aqueous alkali solution; and washing off or neutralizing the aqueous alkali solution on the treated at least one fish egg or milt. (see the specification at page 4, lines 11-21 and page 5, line 18 to page 6, line 3) In this method, the aqueous alkali solution is prepared by dissolving an alkali in water, said alkali is selected from the group consisting of calcium oxide, sodium hydroxide, potassium hydroxide, calcium hydroxide, magnesium

carbonate, ammonium carbonate, sodium carbonate, potassium carbonate, calcium carbonate, sodium hydrogencarbonate, and potassium hydrogencarbonate. (see the specification at page 6, lines 4-15)

As recited in independent Claim 21, the present invention provides a process for producing a fresh fish egg product covered with a single membrane, by treating at least one fresh fish egg with an aqueous alkali solution; and washing off or neutralizing the aqueous alkali solution remaining on the treated fish egg. (see the specification at page 3, lines 1-7, page 4, lines 11-21 and page 5, line 18 to page 6, line 3) In this method, the aqueous alkali solution is prepared by dissolving an alkali in water, said alkali is selected from the group consisting of calcium oxide, sodium hydroxide, potassium hydroxide, calcium hydroxide, magnesium carbonate, ammonium carbonate, sodium carbonate, potassium carbonate, calcium carbonate, sodium hydrogencarbonate, and potassium hydrogencarbonate. (see the specification at page 6, lines 4-15)

VI. Grounds of Rejection

1. Claims 1, 2, 5-13, and 16-22 stand rejected under 35 U.S.C. §103(a) as being obvious over Yip in view of Bender and Bedford.
2. Claims 21 and 22 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite.

VII. Arguments

(A) Claims 1, 2, 5-13, and 16-22 stand rejected under 35 U.S.C. §103(a) as being obvious over Yip in view of Bender and Bedford. This rejection is untenable and should not be sustained.

The present invention provides a process for producing a fresh fish egg product or a milt product in which the fresh fish egg or milt is treated with an aqueous alkali solution and the aqueous alkali solution is washed off or neutralized, as well as a product obtained thereby (see Claims 1, 12, 21, and 22). In the outstanding Office Action, the Examiner has maintained the rejection of the claims as being obvious over the combined disclosures of Yip, Bender and Bedford. Applicants continue to disagree with this rejection for the reasons of record in the response filed on August 8, 2005. Applicants further submit that perhaps the biggest deficiency in the combined disclosures of the prior art is that the Examiner continues to misapply Bender. The Examiner continues to rely upon Bender for disclosing the treatment of fish with an aqueous alkali solution and, now, the Examiner cites Bedford for the specific alkali solution. Applicants submit that this reliance is somewhat misguided.

Bender is most specifically concerned with preservation of fish flesh. Bedford relates to preservation of viscera for the purpose of recovering vitamin-bearing oil. However, contrary to the assertions by the Examiner, Applicants note in each of Bender and Bedford, egg and milt (i.e., sperm) are not specifically disclosed or suggested in any manner.

In the Advisory Action mailed on February 23, 2006, the Examiner alleges that “Bedford does discuss viscera, which broadly includes ovaries which contain the eggs. As Bender discloses the treatment of the entire fish, it would follow that it is effective on all parts of the fish, including the eggs and milt.” However, for the following reasons, Applicants disagree with this assertion by the Examiner and the corresponding assertion that

the skilled artisan would expect that fish eggs and milt may be treated as alleged by the Examiner.

Since the viscera, as well as the fish itself, includes many internal organs of varying degrees of delicacy and Bender and Bedford fail to disclose or suggest any interest in preserving eggs or milt, Applicants submit that the skilled artisan would not have any reason to consider that the solutions disclosed in Bender and Bedford would be useful as presently claimed. Indeed, each of Bender and Bedford Further, Applicants submit that when the foregoing is considered there would be no motivation to combine the disclosures of Bender and Bedford with that of Yip (see below).

The foregoing deficiency in the disclosure of the prior art and the failure to disclose or suggest egg or milt is further emphasized by the following. The Examiner appears to allege the egg and milt are a part of the viscera. However, egg and milt (i.e., sperm) are not actually “internal organs” within the definition of “viscera,” but rather are reproductive cells (see Example 1 and any conventional reference text). Therefore, the combined disclosures of the prior art do not disclose or suggest the subject matter of the presently claimed invention and cannot affect the patentability of the same.

Accordingly, Applicants offer the following summary of the general deficiencies in the prior art disclosures. In regard to Yip, Applicants note that this reference is deficient for at least two reasons. First, as recognized by the Examiner, Yip fails to disclose or suggest washing off or neutralizing the aqueous alkali solution on the treated at least one fish egg or milt. Second, Yip does not disclose or suggest treating fish roe with the alkali recited in Claim 1. At best, Yip provides alkali metal sulfites and citrates, which are not present in the claimed invention. Therefore, based on the disclosure of Yip, the skilled artisan would not have any expectation that treating fist roe with the alkali recited in Claim 1 provide enhanced

commercial value to ovaries or eggs of salmon and the like caught at a later time (see page 4, lines 7-10).

Moreover, as stated above, Yip fails to disclose or suggest the washing off step, as well as the neutralization of the remaining alkali solution after the alkali solution treatment. Failure to include one of these steps results in the remaining alkali denaturalizing the surface membrane of the eggs or milt causing deterioration in the freshness and quality of the eggs or milt. For example, the egg membrane produced by a method that fails to incorporate either the claimed washing or neutralization are highly susceptible to breakage causing the eggs and milt to crush or collapse.

Conventionally eggs that have been harvested from fish caught late in the season, the eggs would have to be either thrown away or used as fish food (see page 2, lines 18-25). However, by the method of the present invention, the eggs can be revived as a new egg product. Further, even for fresh eggs harvested from fish in season, the eggs can be maintained in a fresher state and the membrane can be strengthened. Thus, the life of the egg product can be extended (see Example 2). Moreover, in Example 1 and Comparative Example 1 Applicants have demonstrated the substantial differences in the egg products obtained from the present invention and that obtained by a method in which washing step is omitted, respectively.

At least in an attempt to compensate for the first deficiency in the disclosure of Yip, the Examiner cites Bender. Again, it is noted that in the Advisory Action mailed February 23, 2006, the Examiner alleges that Bender discloses the treatment of the entire fish and, thus, "it would follow that it is effective on all parts of the fish, including the eggs and milt." The apparent basis for the Examiner's position can be found in the assertions in the previous Office Actions that Bender discloses washing fish "either whole, eviscerated, or filleted condition." (column 4, lines 4-6)

It is clear from the statement at column 4, lines 4-6, as well as the remainder of the disclosure of Bender, that this reference is specifically directed to the preservation of fish flesh and skin. Indeed, Bender state as much at column 5, lines 9-16, where it explicitly states “the fish flesh or skin is contacted with treatment solution... to contact all contactable exposed surfaces of the fish or shellfish.” The Examiner is again reminded that the claims relate to washing fish eggs or milt, *not* fish flesh. It is only where the whole fish is treated that it is remotely possible that any organs internal thereto would even be exposed to the treatment solution (i.e., in eviscerated or filleted fish, the internal organs and reproductive cells are removed). However, as disclosed by Bender, only the contactable exposed surfaces are treated. In a whole fish the only contactable surfaces are those on the exterior and, perhaps, the gills and gastro-intestinal tract.

For the foregoing reasons, Bender fails to compensate for the aforementioned deficiency in Yip since this reference merely relates to the treatment of fish, not to eggs or milt (i.e., sperm), which are reproductive cells *not* “internal organs” within the definition of “viscera.” For example, Bender discloses that fish are treated after the fish are eviscerated (see column 3, lines 40-49; column 4, lines 4-6; and column 4, lines 65-68). At no point does Bender disclose or suggest that the internal organs are treated. Therefore, by the words of Bender, the Examiner’s allegation that contacting the whole fish would include treatment of eggs or milt is incorrect.

Moreover, Bender discloses that among the various phosphates, some specific orthophosphates are useful for retarding bacterial contamination on fish meat. However, Bender does not disclose or suggest the use of the specifically claimed alkali solution as presently claimed.

In addition, the invention of Bender resides in the finding that among the various phosphates some specific orthophosphate is useful for retarding bacteria contamination of

fish flesh. Bender, however, neither discloses nor suggests that the specific alkali solutions of the present invention are useful for this purpose. Further, Bender fails to disclose or suggest the importance of the washing step or the neutralization step.

The Examiner cites Bedford for disclosing dry alkalis in the preservation of fish viscera. However, Bedford is plagued by the same problem as highlighted above for Yip. Namely, Bedford fails to disclose or suggest the washing off step, as well as the neutralization of the remaining alkali solution after the alkali solution treatment. Failure to include one of these steps results in the remaining alkali denaturizing the surface membrane of the eggs or milt causing deterioration in the freshness and quality of the eggs or milt. In addition, Bedford also fails to disclose or suggest treatment of eggs or milt (i.e., sperm), which are reproductive cells not “internal organs” within the definition of “viscera.” Therefore, this disclosure is unrelated to the presently claimed invention.

Again, it is noted that in the Advisory Action mailed on February 23, 2006, the Examiner alleges that “Bedford does discuss viscera, which broadly includes ovaries which contain the eggs.” However, this assertion by the Examiner is not an accurate assessment of the disclosure of Bedford.

The disclosure of Bedford is specifically drawn to a “process of preserving fresh fish viscera containing vitamin-bearing oil.” (see, for example, column 1, lines 7-12 and Claims 1-13) There is no evidence of record to suggest that the ovaries, much less fish eggs or milt, fall within the scope of “viscera containing vitamin-bearing oil.” In fact, the scope of the disclosure of Bedford is most apparent from the statement at column 3 (page 2), lines 37-38, which states that the viscera containing vitamin-bearing oil includes “livers, intestines, plioric [pyloric] caeca, etc.” At not point are organs of reproductive import disclosed or suggested, much less link to containing vitamin-bearing oil. As such, Applicants submit that Bedford fails to compensate for the aforementioned deficiencies in the disclosures of Yip and Bender.

Finally, Applicants again remind the Examiner that the mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art *also suggests the desirability of the combination* (MPEP §2143.01). In this case, no such motivation can be found in Yip, Bender, or Bedford.

Moreover, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation... to modify the reference... Second, there must be a reasonable expectation of success. Finally, the prior art reference... must teach or suggest all the claim limitations." (MPEP §2142) For the reasons set forth above, the even if the artisan were to combine the disclosures of Yip, Bender, and Bedford the skilled artisan would have no reasonable expectation of the advantages flowing from the claimed invention (see Example 1 and Comparative Example 1). And, as noted above, the combined disclosures would still fail to disclose or suggest washing off or neutralizing the aqueous alkali solution on the treated *at least one fish egg or milt*, as well as the specific identity of the alkali solution.

In view of the foregoing, it is respectfully requested that this rejection be
REVERSED.

(B) Claims 21 and 22 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite. This rejection is untenable and should not be sustained.

This ground of rejection was based on the Examiner's confusion as to how the preamble of Claim 21 could recite "a process for producing a fresh fish egg product covered with a single membrane," but the body of the claims recites a step of "treating at least one fresh fish egg covered with a double membrane with an aqueous solution." In the Amendment under 37 C.F.R. §1.116, filed on February 7, 2006, Appellants amended Claim

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21 to delete the phrase “with a double membrane.” As such, the claim now reads on treating a fresh fish egg regardless of the number of membranes.

In the Advisory Action mailed February 23, 2006, this ground of rejection is not specifically addressed. If there are new grounds of rejection/criticism, Appellants request that the Office bring them to light. However, since the confusing language has been deleted, this ground of criticism is not believed to be tenable.

In view of the foregoing, it is respectfully requested that this rejection be REVERSED.

VIII. CONCLUSION

For the above reasons, Claims 1, 2, 5-13, and 16-22 are not unpatentable under 35 U.S.C. §112, second paragraph, and under 35 U.S.C. §103(a) over Yip in view of Bender and Bedford. Therefore, the Examiner’s rejections should be REVERSED.

Respectfully submitted,

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Attachments: Claims Appendix: Pending Claims in U.S. Application Serial No. 10/607,049
Evidence Appendix
Related Proceedings Appendix



CLAIMS APPENDIX

Pending Claims in U.S. Application Serial No. 10/607,049

Claim 1 (Previously Presented): A process for producing a fresh fish egg product or a milt product, comprising

treating at least one fresh fish egg or milt with an aqueous alkali solution; and

washing off or neutralizing the aqueous alkali solution on the treated at least one fish egg or milt;

wherein said aqueous alkali solution is prepared by dissolving an alkali in water, said alkali is selected from the group consisting of calcium oxide, sodium hydroxide, potassium hydroxide, calcium hydroxide, magnesium carbonate, ammonium carbonate, sodium carbonate, potassium carbonate, calcium carbonate, sodium hydrogencarbonate, and potassium hydrogencarbonate.

Claim 2 (Original): The process according to claim 1, wherein the at least one fresh fish egg is from at least one fish selected from the group consisting of salmon, trout, herring, codfish, mullet, flying fish and globefish.

Claims 3 – 4 (Canceled)

Claim 5 (Original): The process according to claim 1, wherein said aqueous alkali solution has a pH of 7.5 to 13.0.

Claim 6 (Original): The process according to claim 1, wherein said aqueous alkali solution has a pH of 8.5 to 13.0.

Claim 7 (Original): The process according to claim 1, wherein said aqueous alkali solution has a pH of 9.5 to 12.0.

Claim 8 (Original): The process according to claim 1, wherein the treating time is from 1 minute to 24 hours.

Claim 9 (Original): The process according to claim 1, wherein the treatment temperature is from 0 to 10 °C.

Claim 10 (Original): The process according to claim 1, wherein the washing time is from 1 minute to 24 hours.

Claim 11 (Original): The process according to claim 1, wherein the washing is performed with water or salt water.

Claim 12 (Original): A fresh fish egg product or a milt product made by the process according to Claim 1.

Claim 13 (Original): The product according to claim 12, wherein said at least one fresh fish egg is from at least one fish selected from the group consisting of salmon, trout, herring, codfish, mullet, flying fish and globefish.

Claims 14 – 15 (Canceled):

Claim 16 (Original): The product according to claim 12, wherein said aqueous alkali solution has a pH of 7.5 to 13.0.

Claim 17 (Original): The product according to claim 12, wherein said aqueous alkali solution has a pH of 8.5 to 13.0.

Claim 18 (Original): The product according to claim 12, wherein said aqueous alkali solution has a pH of 9.5 to 12.0.

Claim 19 (Original): The product according to claim 12, wherein said product is at least one salted egg of salmon.

Claim 20 (Original): The product according to claim 12, wherein said product is at least one salted hard roe of salmon.

Claim 21 (Previously Presented): A process for producing a fresh fish egg product covered with a single membrane, comprising
treating at least one fresh fish egg with an aqueous alkali solution; and
washing off or neutralizing the aqueous alkali solution remaining on the treated fish egg,

wherein said aqueous alkali solution is prepared by dissolving an alkali in water, said alkali is selected from the group consisting of calcium oxide, sodium hydroxide, potassium hydroxide, calcium hydroxide, magnesium carbonate, ammonium carbonate, sodium

carbonate, potassium carbonate, calcium carbonate, sodium hydrogencarbonate, and potassium hydrogencarbonate.

Claim 22 (Previously Presented): A fresh fish egg product covered with a single membrane, obtained by the process of Claim 21.

EVIDENCE APPENDIX

None.

RELATED PROCEEDINGS APPENDIX

None.